

WHAT IS CLAIMED IS:

1. A method of treating and/or ameliorating the symptoms of a non-cardiovascular tissue ischemic condition in a mammalian subject, comprising administering to the subject an effective amount of a gamma-tocopherol enriched  
5 tocopherol composition, and by said administering, reducing tissue damage related to said non-cardiovascular tissue ischemic condition.

2. A method of treating and/or ameliorating the symptoms of a non-cardiovascular tissue ischemic condition in a mammalian subject, comprising administering to the subject an effective amount of a gamma-tocopherol metabolite  
10 enriched composition, and by said administering, reducing tissue damage related to said non-cardiovascular tissue ischemic condition.

3. The method of Claim 1, wherein said non-cardiovascular tissue ischemic condition is selected from the group consisting of spinal cord ischemia, liver ischemia, kidney ischemia, vasoconstriction-induced ischemia, ischemia associated with  
15 thromboembolytic disease, ischemia associated with microvascular disease, peripheral nerve damage, and neuropathies.

4. The method of claim 1, wherein said gamma-tocopherol enriched tocopherol composition comprises at least 60% gamma-tocopherol.

5. The method of claim 1, wherein said gamma-tocopherol enriched  
20 tocopherol composition comprises at least 65% gamma-tocopherol.

6. The method of claim 1, wherein said gamma-tocopherol enriched tocopherol composition comprises at least 70% gamma-tocopherol.

7. The method of claim 1, wherein said gamma-tocopherol enriched tocopherol composition comprises at least 75% gamma-tocopherol.

8. The method of Claim 1, wherein said gamma-tocopherol enriched  
25 tocopherol composition comprises at least 50% to 100% gamma-tocopherol.

9. The method of Claim 1, wherein said gamma-tocopherol enriched tocopherol composition comprises at least 55% to 95% gamma-tocopherol.

10. The method of claim 1, wherein said gamma-tocopherol enriched  
30 tocopherol composition comprises at least 95% gamma-tocopherol.

11. The method of claim 2, wherein said gamma-tocopherol metabolite enriched composition comprises at least 5% to 95% gamma tocopherol metabolite.

12. The method of Claim 1, wherein said composition is a nutritional composition.

5 13. The method of Claim 1, wherein said composition is a pharmaceutical composition.

14. The method of Claim 1, wherein said composition is administered orally.

15. The method of Claim 1, wherein said composition is administered parenterally.

10 16. The method of Claim 1, wherein said composition comprises gamma-tocopherol at 20mg/kg body weight of said mammalian subject.